

INCOLOY 825 (UNS N08825)

INCOLOY® alloy 825 (UNS N08825/W.Nr. 2.4858) is a nickel-iron-chromium alloy with additions of molybdenum, copper, and titanium. The nickel content is sufficient for resistance to chloride-ion stress-corrosion cracking. The nickel, in conjunction with the molybdenum and copper, also gives outstanding resistance to reducing environments such as those containing sulfuric and phosphoric acids.

INCOLOY 825
UNS N08825

Cr	Mn	Cu	Si	C	S	Fe	Ni	Mo	Ti	Al
19,5 23,5	max 1,0	1,5 3,0	max 0,5	Max 0,05	max 0,03	Min 22,0	38,0 46,0	2,5 3,5	0,6 1,2	Max 0,2

density (kg/dm³) 8,14

magnetizability no

thermal conductivity at 20 °C (W/m K) 11,1

thermal expansion (K⁻¹)

20 – 100 °C: 14,1 x 10⁻⁶

20 – 200 °C: 14,8 x 10⁻⁶

20 – 300 °C: 15,3 x 10⁻⁶

20 – 400 °C: 15,6 x 10⁻⁶

	Yield Strength (Mpa) (20 C)	Tensile Strength (Mpa) (20 C)	Elongation A5 (%)	Hardness
Solution Annealed	324	690	45	Max 200 HB